

**State of Alaska**  
**FY2006 Governor's Operating Budget**

**Department of Fish and Game**  
**Commercial Fisheries**  
**Results Delivery Unit Budget Summary**

## Commercial Fisheries Results Delivery Unit

### Contribution to Department's Mission

The mission of the Division of Commercial Fisheries is to manage, protect, rehabilitate, enhance, and develop fisheries and aquatic plant resources in the interest of the economy, consistent with the sustained yield principle and subject to allocations through public regulatory processes.

### Core Services

- **Stock Assessment & Applied Research:** Maintain ongoing programs for the enumeration, assessment, and understanding of salmon, herring, groundfish, and shellfish stocks.
- **Harvest Management:** Control the harvest of fishery resources for subsistence, commercial, and personal uses according to plans and regulations.
- **Aquaculture Permitting:** Permit and provide regulatory, technical, and planning services to aquatic farmers and private nonprofit hatchery operators.
- **Information Services and Public Participation:** Develop, maintain and disseminate data, analyses, and published reports.

End Results	Strategies to Achieve Results
<p><b>A: Stable or increasing economic and social benefits derived from the harvest and use of fish, shellfish, and aquatic plants in Alaska.</b></p> <p><u>Target #1:</u> Maintain total annual value of commercial harvests and mariculture production at over \$1 billion annually.</p> <p><u>Measure #1:</u> Total value of commercial harvests and mariculture production of fish, shellfish, and aquatic plants.</p> <p><u>Target #2:</u> Achieve the amounts necessary for subsistence established by the Board of Fisheries in seventy percent of subsistence fisheries.</p> <p><u>Measure #2:</u> Percent of subsistence harvests that exceed amounts necessary for subsistence established by the Alaska Board of Fisheries.</p>	<p><b>A1: Ensure the conservation of natural stocks of fish, shellfish and aquatic plants based on scientifically sound assessments.</b></p> <p><u>Target #1:</u> Establish reproductive goals or other baseline biological reference points for all harvested stocks.</p> <p><u>Measure #1:</u> Percent of harvested stocks with established reproductive goals or other baseline biological reference points.</p> <p><u>Target #2:</u> Develop DNA identifiers for one hundred Alaskan sockeye, chum, and chinook salmon stocks.</p> <p><u>Measure #2:</u> Number of Alaskan sockeye, chum, and chinook salmon stocks represented in DNA databases.</p> <p><u>Target #3:</u> Achieve reproductive goals in 80% of monitored salmon, groundfish, and shellfish stocks.</p> <p><u>Measure #3:</u> Percent of reproductive goals achieved annually.</p> <p><b>A2: Sustain fisheries on stocks of fish, shellfish and aquatic plants based upon the control and regulation of harvests through responsive management systems.</b></p> <p><u>Target #1:</u> Harvest 80 percent of maximum biologically sustainable harvest in each actively managed fishery.</p> <p><u>Measure #1:</u> Percent of managed fisheries in which maximum biologically sustainable harvests are taken.</p> <p><u>Target #2:</u> Meet 80 percent of user group allocation objectives established by the Board of Fisheries by region,</p>

	<p>plus or minus 10 percent.</p> <p><u>Measure #2:</u> Achievement of user group allocation objectives established in Board of Fisheries regulations and management plans.</p> <p><u>Target #3:</u> Provide data from coded wire tags and otolith marks within one week of receipt at Tag Lab.</p> <p><u>Measure #3:</u> Processing time of coded wire tag data and otolith data for managing salmon fisheries.</p> <p><b>A3: Expand production potential through mariculture and development of new commercial fishing opportunities on underutilized species.</b></p> <p><u>Target #1:</u> Ensure 100% of all active aquatic farms operate under the terms of a current aquatic farm permit.</p> <p><u>Measure #1:</u> Percent of aquatic farms operating under the terms of a current aquatic farm permit.</p> <p><u>Target #2:</u> Establish harvest guidelines for 80 percent of all underutilized species/stock groups proposed for new fishery development annually by the public.</p> <p><u>Measure #2:</u> Percent of public requests for new fisheries for which basic harvest guidelines are developed.</p> <p><u>Target #3:</u> Process 100% of samples submitted by salmon hatcheries, shellfish hatcheries, and aquatic farmers.</p> <p><u>Measure #3:</u> Proportion of fish disease analysis submitted to Pathology Lab that are processed annually.</p>
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<b>Major Activities to Advance Strategies</b>	
<ul style="list-style-type: none"> <li>• Collect age, size, and sex data on harvested finfish and shellfish populations.</li> <li>• Operate aging/tag/otolith, genetics, and pathology laboratories.</li> <li>• Collect and analyze genetic markers from finfish and shellfish populations.</li> <li>• Survey and sample marine finfish and shellfish populations.</li> <li>• Calculate annual escapement goals for salmon.</li> <li>• Establish annual harvest objectives for marine species.</li> <li>• Prevent the introduction and spread of invasive and introduced species.</li> <li>• Permit aquatic farms for shellfish and aquatic plants.</li> <li>• Provide biological and technical assistance to existing and prospective aquatic farmers.</li> <li>• Open and close areas for commercial fishing to harvest surpluses.</li> <li>• Collect harvest information from commercial, personal use and subsistence fisheries.</li> <li>• Operate weirs, sonar projects, and counting towers to track salmon escapements.</li> <li>• Conduct aerial surveys during management of salmon and herring fisheries.</li> <li>• Place observers on fishing vessels to sample catches and collect data.</li> </ul>	<ul style="list-style-type: none"> <li>• Provide technical oversight in finfish and shellfish health for hatchery and farm operators.</li> <li>• Prevent or prescribe treatment for disease outbreaks at salmon hatcheries or shellfish farms.</li> <li>• Provide harvest and production data to CFEC and NPFMC.</li> <li>• Comment to NPFMC and CFEC on fishery management and biological issues associated with rationalization proposals.</li> <li>• Provide individual fishing history data to boat owners, captains, and federal and state agencies.</li> <li>• Open and close areas and species for subsistence and personal use harvest.</li> <li>• Issue permits for personal use and subsistence fisheries.</li> <li>• Tabulate subsistence and personal use catches.</li> <li>• Provide reports to the Board of Fisheries and other entities on subsistence and personal use fisheries.</li> <li>• Work with the Board of Fisheries and the public to craft management plans and regulations that meet subsistence and personal use needs.</li> <li>• Provide biological and fishery management information to the Board of Fisheries and state fish and game advisory committees.</li> <li>• Submit proposals to the Board of Fisheries.</li> </ul>

### Major Activities to Advance Strategies

- Conduct test fishing operations as part of stock assessment efforts.
- Conduct life history and habitat utilization research.
- Conduct stock assessment and recruitment modeling.
- Investigate new and improved technologies for determining biological productivity and calculating yields.
- Conduct collaborative research with universities, federal agencies, and non-governmental organizations.
- Expand database of genetic markers to stocks not currently covered.
- Develop models for calculating Maximum Sustained Yield for stocks lacking them.
- Provide training and continuing education for staff from all job classes.
- Conduct life history and other biological research on underutilized fish stocks.
- Respond to industry requests for new fisheries on underutilized stocks.
- Work with Board of Fisheries to authorize fisheries on underutilized stocks.
- Permit and oversee private non-profit salmon hatchery program.
- Approve salmon and shellfish stocks with acceptable disease histories for mariculture and salmon aquaculture programs.
- Comment on both staff and public proposals before the Board of Fisheries.
- Provide oral and written biological and fishery management advice to the Board of Fisheries.
- Draft regulations and management plans based on proposals approved by the Board of Fisheries.
- Provide staff support to the Alaska Board of Fisheries.
- Design and maintain electronic databases for catch and production data.
- License fish processors.
- Design, print, issue, collect, edit, and data enter fish tickets recording harvests.
- Collect, edit and data enter annual buying and production data from seafood processors.
- Provide summary information on harvests and production in electronic and print media.
- Maintain confidentiality of protected data.
- Publish catch and production information on web site.
- Provide internet access to searchable database of division publications.
- Publish news releases on department research and management activities.
- Publish articles on fisheries management and research in magazines and trade journals.
- Provide photos and video footage on the web site and to the media.

### FY2006 Resources Allocated to Achieve Results

FY2006 Results Delivery Unit Budget: \$51,987,700

**Personnel:**

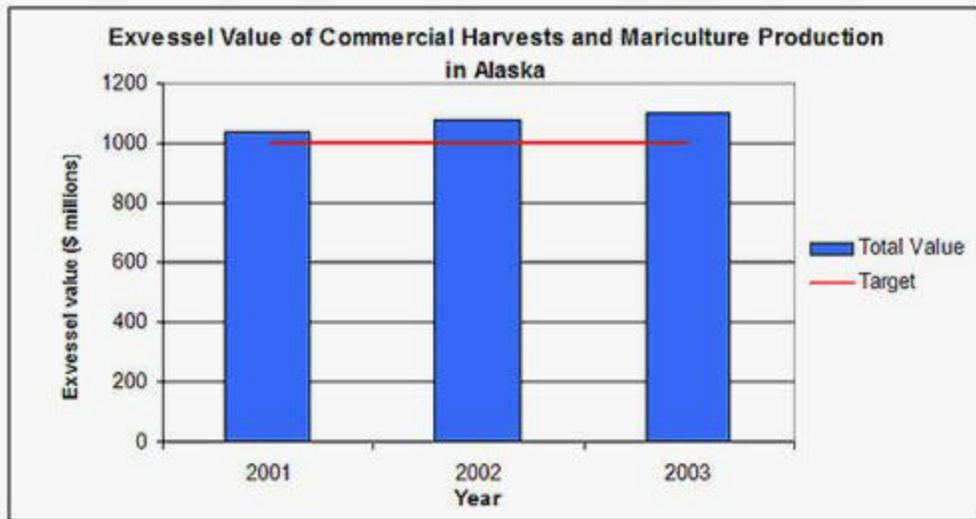
Full time	300
Part time	512
<b>Total</b>	<b>812</b>

### Performance Measure Detail

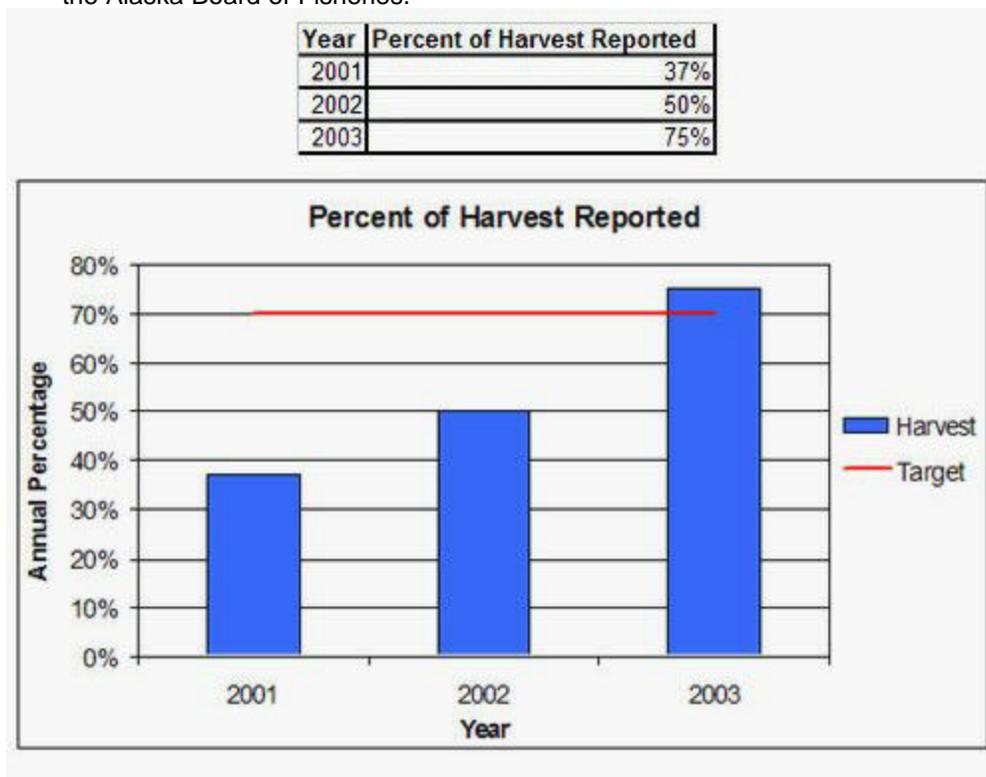
**A: Result - Stable or increasing economic and social benefits derived from the harvest and use of fish, shellfish, and aquatic plants in Alaska.**

**Target #1:** Maintain total annual value of commercial harvests and mariculture production at over \$1 billion annually.

**Measure #1:** Total value of commercial harvests and mariculture production of fish, shellfish, and aquatic plants.



**Target #2:** Achieve the amounts necessary for subsistence established by the Board of Fisheries in seventy percent of subsistence fisheries.  
**Measure #2:** Percent of subsistence harvests that exceed amounts necessary for subsistence established by the Alaska Board of Fisheries.

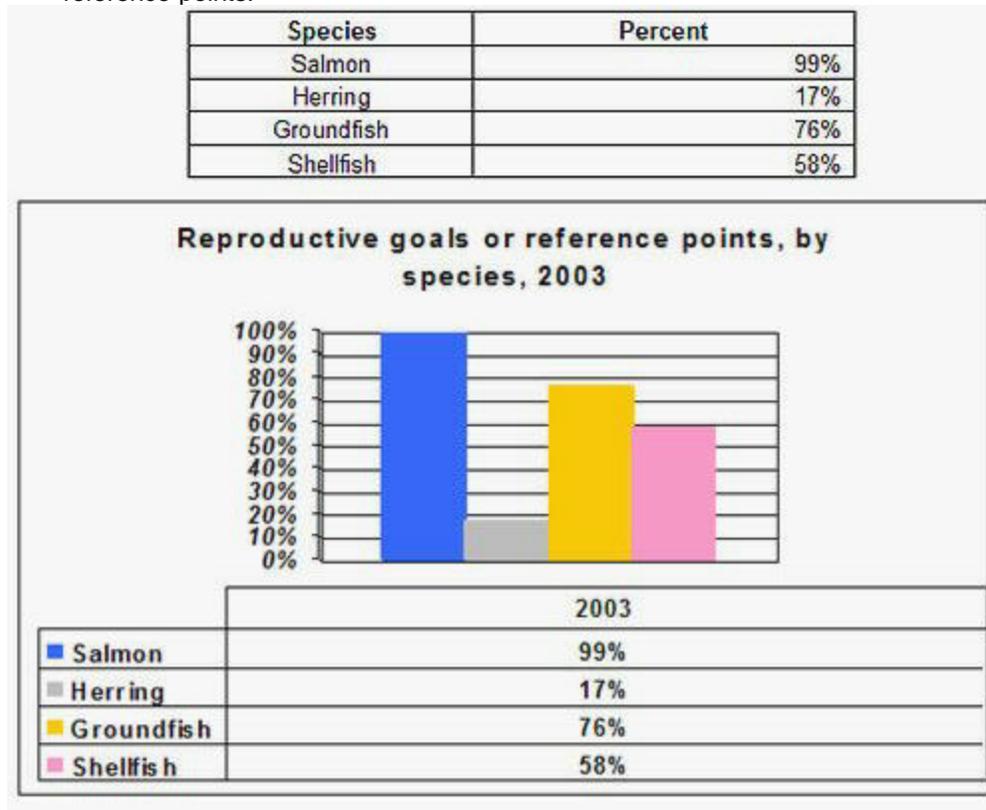


**Analysis of results and challenges:** Data from selected major subsistence fisheries including the Yukon and Kuskowim Rivers, Bristol Bay, and the Sitka Sound herring roe subsistence fisheries.

**A1: Strategy - Ensure the conservation of natural stocks of fish, shellfish and aquatic plants based on scientifically sound assessments.**

**Target #1:** Establish reproductive goals or other baseline biological reference points for all harvested stocks.

**Measure #1:** Percent of harvested stocks with established reproductive goals or other baseline biological reference points.

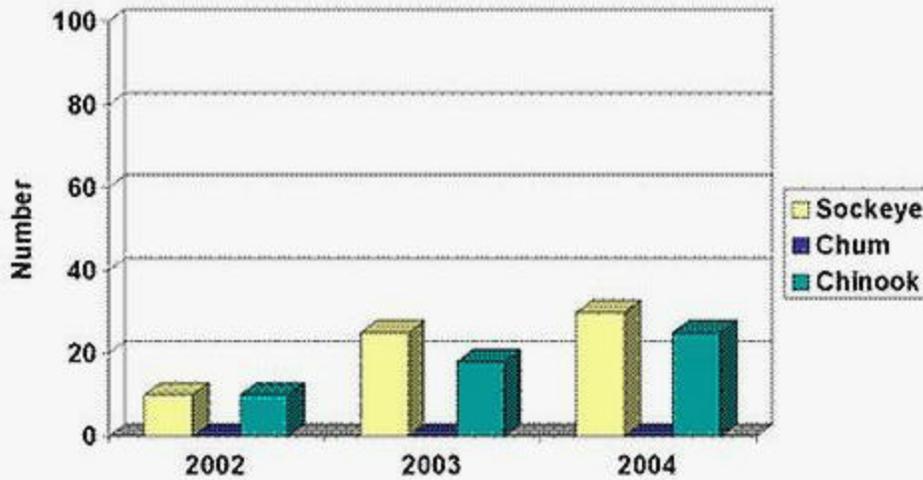


**Analysis of results and challenges:** The reproductive goals for salmon cover a diversity of types of goals and quality of data. Some goals are specific to a single species in a single river; others represent a goal for a group of closely related spawning populations that are managed as a unit. Some goals are based on a quantitative analysis, with good, consistently collected data on catches and escapements; and others are based on a qualitative assessment from more fragmentary data. The division is continually working to improve its data and the precision of its salmon escapement goals.

**Target #2:** Develop DNA identifiers for one hundred Alaskan sockeye, chum, and chinook salmon stocks.

**Measure #2:** Number of Alaskan sockeye, chum, and chinook salmon stocks represented in DNA databases.

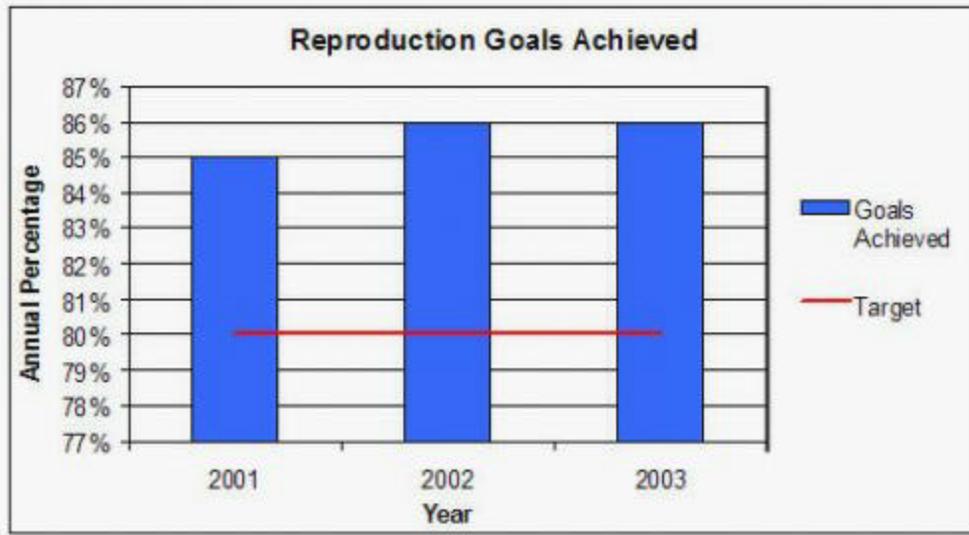
## Completion of Baselines for Alaskan Stocks DNA Markers



**Target #3:** Achieve reproductive goals in 80% of monitored salmon, groundfish, and shellfish stocks.

**Measure #3:** Percent of reproductive goals achieved annually.

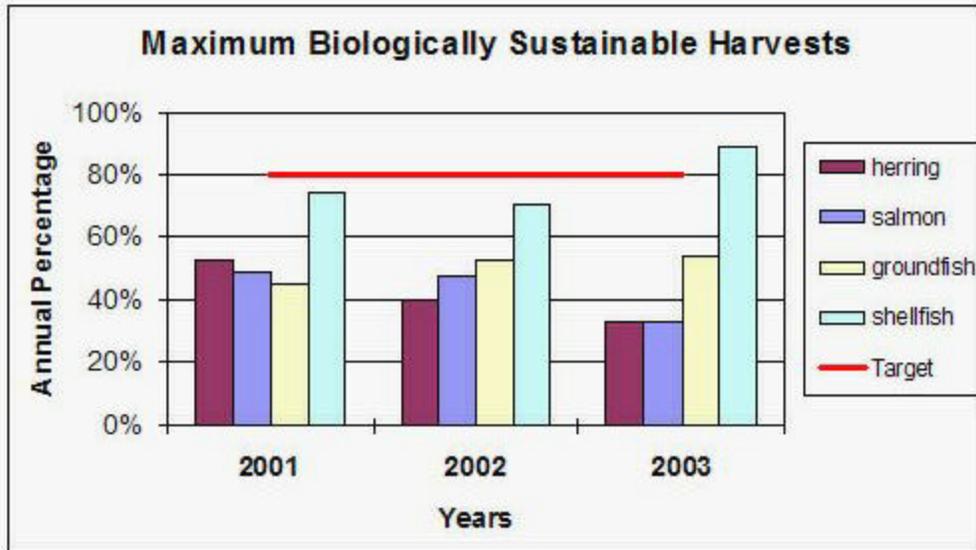
Years	Goals Achieved
2001	85%
2002	86%
2003	86%



**A2: Strategy - Sustain fisheries on stocks of fish, shellfish and aquatic plants based upon the control and regulation of harvests through responsive management systems.**

**Target #1:** Harvest 80 percent of maximum biologically sustainable harvest in each actively managed fishery.

**Measure #1:** Percent of managed fisheries in which maximum biologically sustainable harvests are taken.



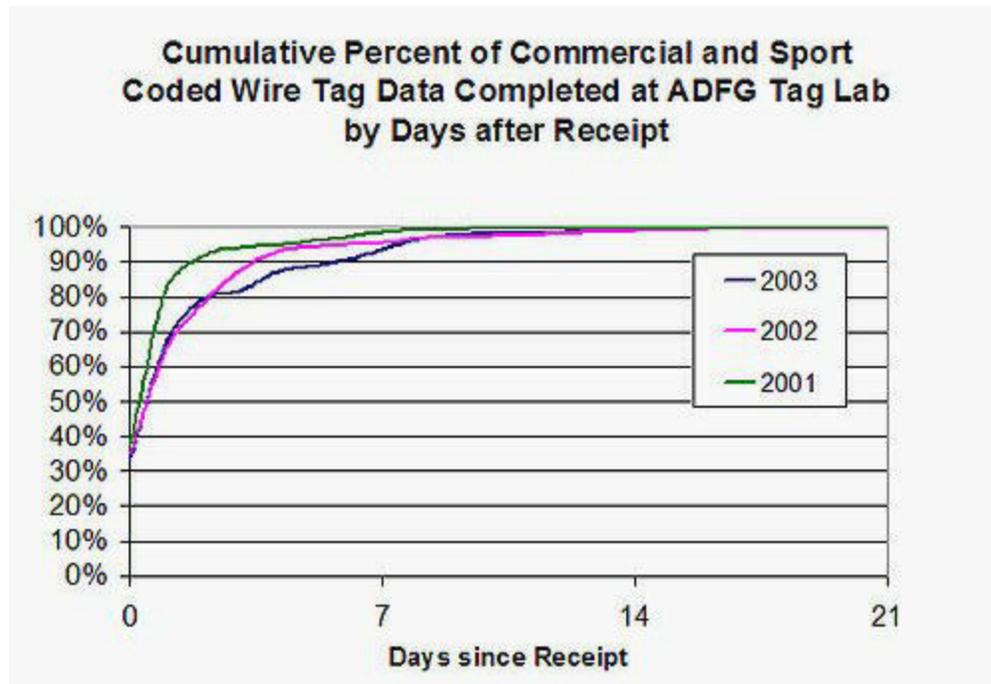
**Target #2:** Meet 80 percent of user group allocation objectives established by the Board of Fisheries by region, plus or minus 10 percent.

**Measure #2:** Achievement of user group allocation objectives established in Board of Fisheries regulations and management plans.

Achieved Allocation Objectives		
2003	Achieved	Percent
Regions		
Southeast	Yes	100%
Central	Yes	100%
Westward	Yes	100%
(AYK N/A)		

**Target #3:** Provide data from coded wire tags and otolith marks within one week of receipt at Tag Lab.

**Measure #3:** Processing time of coded wire tag data and otolith data for managing salmon fisheries.



**A3: Strategy - Expand production potential through mariculture and development of new commercial fishing opportunities on underutilized species.**

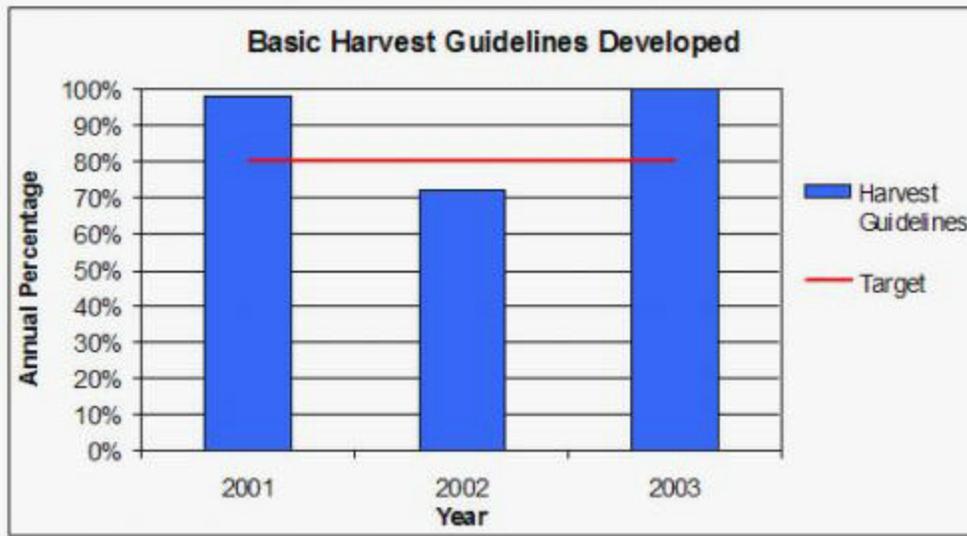
**Target #1:** Ensure 100% of all active aquatic farms operate under the terms of a current aquatic farm permit.  
**Measure #1:** Percent of aquatic farms operating under the terms of a current aquatic farm permit.

Current Aquatic Farm Permits	
YEAR	Existing Operations Approved
2003	47%

**Target #2:** Establish harvest guidelines for 80 percent of all underutilized species/stock groups proposed for new fishery development annually by the public.  
**Measure #2:** Percent of public requests for new fisheries for which basic harvest guidelines are developed.

Total annual number of public requests granted for new fisheries for which basic harvest guidelines are developed.

Fishery	2001		2002		2003	
	Requested	Granted	Requested	Granted	Requested	Granted
Groundfish	2	2	4	2	8	7
Shellfish	14	13	31	28	53	52

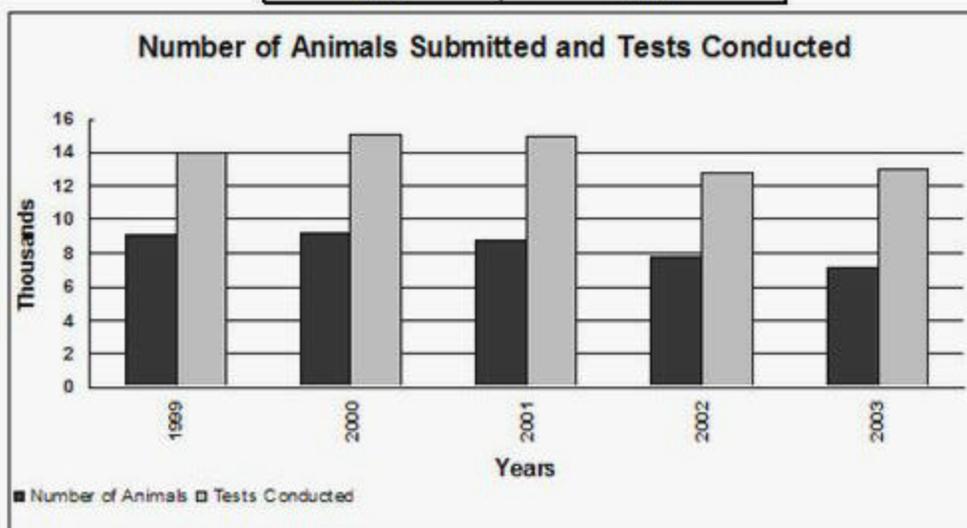


**Target #3:** Process 100% of samples submitted by salmon hatcheries, shellfish hatcheries, and aquatic farmers.

**Measure #3:** Proportion of fish disease analysis submitted to Pathology Lab that are processed annually.

**Fish Disease Samples Processed Annually**

Year	Annual Percentage
1999	100%
2000	100%
2001	100%
2002	100%
2003	100%



## Key RDU Challenges

### Salmon Fishery Restructuring

Poor market conditions for Alaskan salmon are forcing major restructuring in the Alaskan salmon industry among both processors and fishermen. Coastal communities are also severely impacted. Industry, in turn, is requesting innovations in salmon management to assist in reducing costs, improving quality, and better utilizing current harvesting and processing capacity.

### Bering Sea Crab Research

The division is working on new methodologies, with federal funds, for stock assessments of Bering Sea snow crab, a stock that until recently provided the largest crab harvests in Alaska. Improved stock assessments will allow the department to maximize harvests, which is especially important to industry during periods of low stock productivity.

### Employee Recruitment and Retention Difficulties

The division is continuing to lose experienced biologists, fishery scientists, and biometricians to federal agencies and other employers as well as retirements. Replacing these specialized and experienced staff has proven difficult because we cannot offer competitive salaries. Insufficient applicants from within the state are requiring supervisors to recruit from out of state for almost all positions and even then many of our vacancies attract a poor applicant pool.

### Federal/State Subsistence

In order to minimize disruption to state residents; to protect state fish resources; and minimize federal intrusion into state management, significant staff time is spent interacting with the federal system of regional councils, representing federal subsistence users, and the federal bureaucracy.

### Federal Fishery Rationalization

The North Pacific Fishery Management Council has a number of initiatives underway that affect state managed fisheries. These include proposals for rationalization of the Bering Sea crab fisheries and the groundfish fisheries in the Gulf of Alaska. State managers and researchers must work with the NPFMC to avoid deleterious impacts to state fisheries and coastal communities as federal rationalization occurs.

### Western Alaska Salmon Returns

Salmon returns to the Kuskokwim and Yukon Rivers and Norton Sound improved in 2004, but returns are below average in many areas of western Alaska. It is still too soon to tell whether the improvements seen in 2004 are short or long term. Federally-funded research projects intended to improve understanding of the factors affecting salmon production in Western Alaska are continuing.

### Fishery Allocations

The allocation of fisheries resources among users continues to place significant demands on policy makers and managers. In many cases, the division does not have adequate funding to gather and analyze the data needed by the policy makers to address these complex issues. Nor does it have the funds necessary to carry out allocative management decisions that depend on the collection and analysis of additional data. The result is that allocative disputes often continue to worsen and become increasingly acrimonious.

### Vessels and Aircraft Maintenance

The division has several research and support vessels and four small aircraft, which require regular maintenance and periodic overhaul. They are integral to a variety of stock assessment programs and also provide platforms for inseason management. Maintenance must be provided to protect this capital investment, assure efficient operations, and meet safety requirements.

### Support for Aquaculture

Both private non-profit salmon hatchery operators and aquatic shellfish farmers depend on the division for planning, permitting, disease prevention, and other technical services. The division is frequently unable to provide the level of support desired, because of limited funding and staffing.

### Test Fish Revenue Concerns

In recent years, some members of the legislature and the commercial fishing industry have raised concerns over the division's test fish program, including: 1) fish taken by department test fishing operations are removed from the common property fisheries and, therefore, not available to be harvested in the commercial fishery; 2) some object to test fishing as an "indirect form of taxation" that excludes the users of the common property resource from the fiscal policy decision-

making process, and 3) the department's costs for operating projects funded with test fishing have increased over the years due to inflation and higher labor costs. At the same time, there has been a downward spiral in fish prices, particularly for salmon but also for other fish and shellfish species. As fish prices or run sizes decline, the percentage of the resource needed to meet budget allocations increases.

#### **CFEC Receipt Services Revenue Decline**

The Headquarters Fisheries Management Component receives \$230.0 in Receipt Supported Services revenue from Commercial Fisheries Entry Commission (CFEC). Due to a decline in the value of fishery permits, revenue from CFEC may not materialize in FY06. The division wouldn't be able to pay for vital services and staff in the director's headquarters office without this revenue. A fund source conversion to general fund would eliminate this concern and allow level funding within the headquarters office.

### **Significant Changes in Results to be Delivered in FY2006**

An increment is requested to provide funding for sockeye management projects in Central Region. All of these projects are intended to improve management of harvests and escapements into individual river systems. Mark and recapture projects will be undertaken in the Copper, Kenai, and Yentna Rivers to validate the estimates of escapement provided by the current sonar projects in the respective rivers. Genetic stock identification technology will be utilized to improve the accuracy and precision of the allocation of commercial catches in mixed stock fisheries to the individual salmon stocks contributing to the mixed stock harvests.

### **Major RDU Accomplishments in 2004**

The 2004 Alaska commercial salmon catch was approximately 168 million fish with an exvessel value of \$240 million. Both the harvest and the value are up from 2003. Although the 2004 harvest is the ninth largest in history, the ex-vessel value is still well below the most recent ten-year average of \$316 million.

The management of subsistence, commercial, and personal use salmon fisheries in 2004 continued the division's successful record of harvesting large numbers of salmon while maintaining spawning populations that will provide for continued use of these resources by future generations of Alaskans.

The state waters Pacific cod fishery was successful in taking the entire quota in the Kodiak, Alaska Peninsula, and Chignik areas. Communities and industry representatives from the affected areas are supporting an increase in the quotas for these areas.

Research plans have been developed, or are in the process of development, to examine the factors affecting salmon production in Western Alaska. These plans are funded by the federal government and are bringing together a coalition of private and government organizations to set research objectives, select projects for funding, and operate projects.

#### **Contact Information**

**Contact:** Robert D. Mecum, Division Director  
**Phone:** (907) 465-4210  
**Fax:** (907) 465-2604  
**E-mail:** [doug\\_mecum@fishgame.state.ak.us](mailto:doug_mecum@fishgame.state.ak.us)

**Commercial Fisheries  
RDU Financial Summary by Component**

*All dollars shown in thousands*

	FY2004 Actuals				FY2005 Management Plan				FY2006 Governor			
	General Funds	Federal Funds	Other Funds	Total Funds	General Funds	Federal Funds	Other Funds	Total Funds	General Funds	Federal Funds	Other Funds	Total Funds
<b>Formula Expenditures</b>												
None.												
<b>Non-Formula Expenditures</b>												
SE Region Fisheries Mgmt.	4,305.0	453.8	383.4	5,142.2	4,013.9	448.7	917.5	5,380.1	4,141.6	469.6	917.5	5,528.7
Central Region Fisheries Mgmt.	5,423.3	0.0	551.5	5,974.8	5,299.4	0.0	998.0	6,297.4	5,909.7	0.0	998.0	6,907.7
AYK Region Fisheries Mgmt.	4,183.7	0.0	34.0	4,217.7	3,913.9	0.0	319.7	4,233.6	4,067.8	0.0	319.7	4,387.5
Westward Region Fisheries Mgmt.	5,450.1	0.0	763.0	6,213.1	5,069.0	0.0	1,678.5	6,747.5	5,240.7	0.0	1,678.5	6,919.2
Headquarters Fisheries Mgmt.	2,210.2	0.0	433.6	2,643.8	1,789.0	0.0	888.3	2,677.3	1,756.2	0.0	888.3	2,644.5
Fisheries Development	2,344.1	0.0	0.0	2,344.1	2,196.3	0.0	178.4	2,374.7	2,769.2	0.0	178.4	2,947.6
Comm Fish Special Projects	0.0	10,215.9	2,718.9	12,934.8	188.0	13,853.0	5,019.9	19,060.9	25.5	14,388.5	5,244.0	19,658.0
Comm Fish CIP Position Costs	0.0	0.0	2,726.8	2,726.8	0.0	0.0	2,396.7	2,396.7	0.0	0.0	2,994.5	2,994.5
<b>Totals</b>	<b>23,916.4</b>	<b>10,669.7</b>	<b>7,611.2</b>	<b>42,197.3</b>	<b>22,469.5</b>	<b>14,301.7</b>	<b>12,397.0</b>	<b>49,168.2</b>	<b>23,910.7</b>	<b>14,858.1</b>	<b>13,218.9</b>	<b>51,987.7</b>

**Commercial Fisheries**  
**Summary of RDU Budget Changes by Component**  
**From FY2005 Management Plan to FY2006 Governor**

*All dollars shown in thousands*

	<u>General Funds</u>	<u>Federal Funds</u>	<u>Other Funds</u>	<u>Total Funds</u>
<b>FY2005 Management Plan</b>	<b>22,469.5</b>	<b>14,301.7</b>	<b>12,397.0</b>	<b>49,168.2</b>
<b>Adjustments which will continue current level of service:</b>				
-SE Region Fisheries Mgmt.	127.7	20.9	0.0	148.6
-Central Region Fisheries Mgmt.	210.3	0.0	0.0	210.3
-AYK Region Fisheries Mgmt.	153.9	0.0	0.0	153.9
-Westward Region Fisheries Mgmt.	171.7	0.0	0.0	171.7
-Headquarters Fisheries Mgmt.	-32.8	0.0	0.0	-32.8
-Fisheries Development	72.9	0.0	0.0	72.9
-Comm Fish Special Projects	-162.5	535.5	224.1	597.1
-Comm Fish CIP Position Costs	0.0	0.0	597.8	597.8
<b>Proposed budget increases:</b>				
-Central Region Fisheries Mgmt.	400.0	0.0	0.0	400.0
-Fisheries Development	500.0	0.0	0.0	500.0
<b>FY2006 Governor</b>	<b>23,910.7</b>	<b>14,858.1</b>	<b>13,218.9</b>	<b>51,987.7</b>